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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,162	07/20/2000	Thomas H. Baum	249-Div.	2598

7590

08/02/2002

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EXAMINER

MARKHAM, WESLEY D

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 08/02/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/620,162

Applicant(s)

BAUM ET AL.

Examiner

Wesley D Markham

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 July 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: see attached Office Action.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-22 and 27.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_.

**DETAILED ACTION / ADVISORY ACTION**

***Response to Amendment***

1. Acknowledgement is made of applicant's proposed amendment D, filed as paper #9 on 7/10/2002, in which the applicant proposed to cancel Claims 6, 18, 20, and 22, amend Claims 14 and 27, and add Claim 28. However, this amendment has not been entered because it raises new issues that would require further searching and/or consideration. Specifically, new Claim 28 would require that the manganate material be annealed in oxygen. As this limitation has not been present in the claims to this point, addition of new Claim 28 would require further searching and consideration, and therefore applicant's proposed amendment D has not been entered. Claims 1 – 22 and 27 remain pending in U.S. Application Serial No. 09/620,162, and an advisory action follows.

***Response to Arguments***

2. Applicant's arguments filed on 7/10/2002 have been fully considered but they are not persuasive.
3. In response to the applicant's arguments regarding the objection to the claims (set forth in paragraphs 2 – 4 of the previous Office Action) and the rejection of Claim 27 under 35 U.S.C. 112, first paragraph (set forth in paragraph 7 of the previous Office Action) and second paragraph (set forth in paragraph 10 of the previous Office Action), the arguments are moot because applicant's proposed amendment D has not been entered. However, the examiner notes that the applicant's proposed

amendments to the claims, including the cancellation of appropriate claims, appear to overcome the aforementioned claim objection(s) and rejection(s).

4. First, the applicant makes a number of arguments against Li et al. (USPN 5,487,356) alone, such as stating that Li et al. does not suggest or understand that making a material A-site deficient raises the Curie temperature of the material to at or above room temperature, and stating that Li et al. is directed to making stoichiometrically regular films. In response to applicant's arguments against Li et al. individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, the examiner notes that the claims of the instant application do not require the manganate material to have a Curie temperature at or above room temperature. Dependent Claim 27 is the only claim that refers to a Curie temperature, and the Curie temperature is only required to be above 273 K (i.e., 0° C).
5. Second, the applicant argues that, because Li et al. teaches making stoichiometrically regular films, Li et al. teaches away from the applicant's claimed invention. In response, Li et al. does not teach away from the applicant's claimed invention – Li et al. simply teaches a different way. This is not the same as a “teaching away”.
6. Third, the applicant argues that there is no motivation in the art to move in the direction of the applicant's claimed process for making magnetoresistive materials

having a Curie temperature that is at or above room temperature. In response, the examiner again notes that the claims of the instant application do not require the manganate material to have a Curie temperature at or above room temperature.

7. Fourth, the applicant argues that only through inventive insight could the inventors of the instant invention discover that (1) reducing the concentration of an A-site component in a manganate material increases the  $RT_{\max}$ , (2) the ratio of M/La is critical to obtaining  $RT_{\max}$ , (3) the variance in (La+M);Mn ratio has a greater influence on  $T_c$  than M/La, and (4) the method conditions under which to obtain 1 – 3. In response, it is noted that the aforementioned features are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
8. Fifth, the applicant argues that Munakata et al. teaches away from the applicant's claimed component stoichiometry. In response, the examiner strongly disagrees. Munakata et al. explicitly teaches an A-site deficiency of up to 0.2 (Abstract), corresponding to an "(x+y)" value of 0.8. This is within the applicant's claimed range of (x+y) values of 0.5 to 0.9. The examiner does note that Munakata et al. does not explicitly teach (x+y) values of less than 0.8, but the claims of the instant application are open to (x+y) values of up to 0.9, a range encompassed by the teaching of Munakata et al.
9. Sixth, the applicant argues that, absent hindsight reasoning, there is no motivation to combine Li et al. with Munakata et al. In response, the motivation to combine

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Munakata et al. with Li et al. is clear and explicit in the references. Briefly, Munakata et al. is drawn to making A-site deficient manganate films having a specific stoichiometry (Abstract and Col.3). Li et al. teaches that manganate films can be successfully deposited by liquid source delivery CVD (Abstract). Further and importantly, Li et al. also teaches that benefits of this CVD method include (1) good control of key variables such as film thickness and film stoichiometry, (2) coating of a wide variety of substrate geometries, and (3) the ability to be readily scaled up to production runs (Col.2, lines 38 – 65). This teaching provides a clear motivation to combine Li et al. with Munakata et al. (i.e., to form the A-site deficient materials of Munakata et al. utilizing the method of Li et al.). Please note that the fact that applicant has recognized another advantage (i.e., the magnetoresistive benefits of having an A-site deficient stoichiometry in a manganate film) which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley D Markham whose telephone number is (703) 308-7557. The examiner can normally be reached on Monday - Friday, 8:00 AM to 4:30 PM.

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11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.
12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



WDM

July 31, 2002

Wesley D Markham  
Examiner  
Art Unit 1762



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SUPERVISORY PATENT EXAMINER  
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